

Remarks:

The Office Action, referring to the objection to claims 12 and 13 notes that these claims have not been further treated on the merits. Claim 12 has been amended to obviate the objection set forth on paragraph No. 1 on page 2 of the Office Action. Similarly, claim 14 is amended to obviate the rejection set forth in paragraph No. 3. The amendment to claim 10 corrects a typographical error in the Preliminary Amendment.

Claims 1-11 and 14 are rejected under 35 USC 103(a) as being directed to subject matter which is obvious over the Shimizu et al US 6,277,455 B1 (hereinafter "Shimizu"). It is respectfully submitted that applicants claimed invention as set forth in the amended claims herein is not obvious in view of the Shimizu disclosure, as explained in detail hereinafter.

The present invention provides a resin-coated metal sheet which does not induce white haze phenomenon and retort blushing phenomenon even after retorting as a disinfection treatment (see page 4, lines 20 to 24).

It is a feature of the present invention that in order to prevent the retort blushing, there is used in the lower resin layer, a copolyalkylene terephthalate containing 1 to 10% by mole of aromatic dicarboxylic acid having metal sulfonate group and terephthalic acid as the dicarboxylic acid component (see page 8,

line 21 - page 13, line 5, under the heading "Lower resin layer" and amended claim 1). The lower resin layer is structured in the manner mentioned above for the reasons of suppressing retort blushing (whitening) and for entrapping the water vapor, which is a cause of whitening, as the water molecules in the resin (see page 8, line 21 - page 13, line 5). The copolyalkylene terephthalate, which composes the lower resin layer of the present invention, is made up of an aromatic dicarboxylic acid component with a glycol component, free of aliphatic acid and does not include reactive unsaturated bond(s) in the main chain. Herein, the distance of carbon-carbon double bond (C=C) in the benzene ring is in a state of standing in between that of single bond and the of double bond, and therefore, the additional reactivity which is a characteristic of the reactive unsaturated bond can hardly occur. Therefore, it does not correspond to a reactive unsaturated bond.

Shimizu discloses that coarse crystals generated after retorting are the cause of whitening (see Col. 7, lines 20-40) and dimmer acid is specified as an indispensable component in the Shimizu lower resin structure. Shimizu discloses that dimmer acid is obtained through dimerization of a higher unsaturated fatty acid such as oleic acid and includes the reactive unsaturated bond in the main chain (see Col. 6, lines 19-21).


In general, a polyester which includes a reactive unsaturated bond in the main chain (unsaturated polyester) is inferior in resistance to water and heat resistance, when compared with a polyester which does not include a reactive unsaturated bond in the main chain (saturated polyester). This is obvious from Shimizu who discloses that excessive amounts of dimer cause deteriorated heat resistance and strength (see Col. 6, lines 14-15).

Consequently, with Shimizu's resin compositing, the resin layer deteriorates and is apt to exfoliate in an environment of high temperature and humidity as in the case of retorting. Moreover, according to Shimizu, which considers that coarse crystals generated after retorting are the cause of whitening, and with the resin composition shown in the Examples (see Col. 15, lines 28-34), the water vapor, a cause of the formation of bubbles inside the resin layer, is unable to be entrapped and retort blushing phenomenon is unable to be suppressed at all.

It is respectfully submitted that applicants claimed invention is not rendered obvious by Shimizu's disclosure of a different approach to solving the problem as discussed hereinbefore.

Allowance of the claims is solicited. If the Examiner has
an comments or suggestions, a telephone call to the undersigned
is invited.

Respectfully submitted,


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